A dispatch from Sulphur Springs, * * * 35 miles northeast of Wills Point, reports that J. B. Pickett and D. N. Rape, living 10 miles south of that place, found several pictures [photographs] which they brought to town. These are supposed to be from Wills Point. * * * There was a canceled check for a small amount on a Wills Point bank picked up * * * 2½ miles northwest of town. * * *

From Emory (it is reported) an old letter was picked up to-day * * * addrest to Wills Point, showing it had been blown from that place. [i. e., from Wills Point, 18 miles northeastward to Emory.] * * *

From Martins Mill, 23 miles south-southeast of Wills Point, it is reported that Saturday afternoon [May 25], between 4 and 5 o'clock, while the people of Martins Mill were engaged in observing a tornado raging in the forest between Martins Mill and Walton, some one noticed a funnel-shaped cloud with a smoky appearance forming about 1 mile south of that place. [Walton is 5 miles southwest of Martins Mill]. Only a glance was necessary to see that it was a tornado making its way directly toward the town. * * * It traveled in a northerly direction, passing * * * west of the resident section of the village, the business section lying directly in its course. * * *

From Canton, 13 miles south-southeast of Wills Point, it is reported that Saturday afternoon, about 5:30 o'clock, there was visible to many of the citizens a tornado cloud, formed in the southwest. The cloud seemed to divide, one portion going in an easterly direction, visiting the neighboring village, Martins Mill, situated 11 miles southeast of Canton. * * * The storm traveled on, taking a northerly course, visiting Rast Community [2 miles north of Martins Mill]. * * *

From Colfax, 19 miles southeast of Wills Point, it is reported that late Saturday afternoon a terrible tornado * * * past a few miles west of the place. * * *

Two photographs of the tornado were forwarded by Mr. D. S. Landis, in charge of the local office of the Weather Bureau at Fort Worth, Tex. They were taken by Mr. George Alford, of Wills Point.

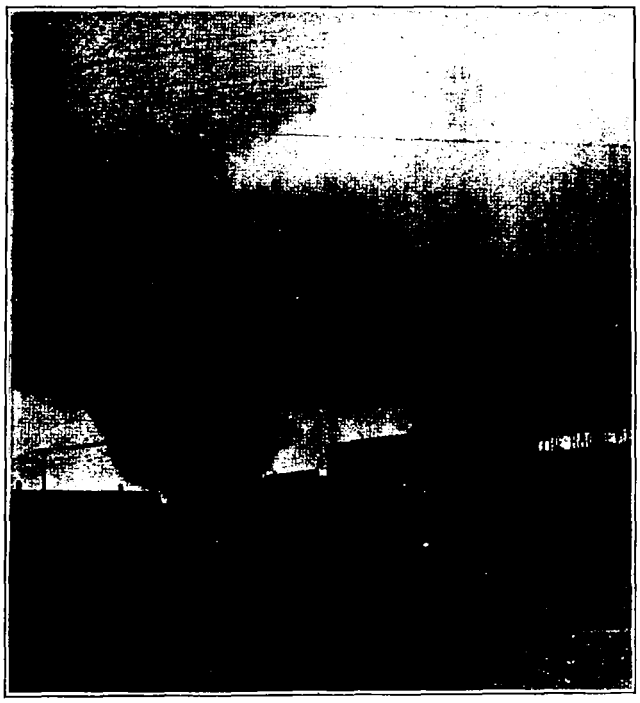

FIG. 1.—The tornado cloud of May 25, 1907, passing thru Wills Point, Tex. The camera faced east-northeast; the cloud is distant about 500 yards and is moving northeast.

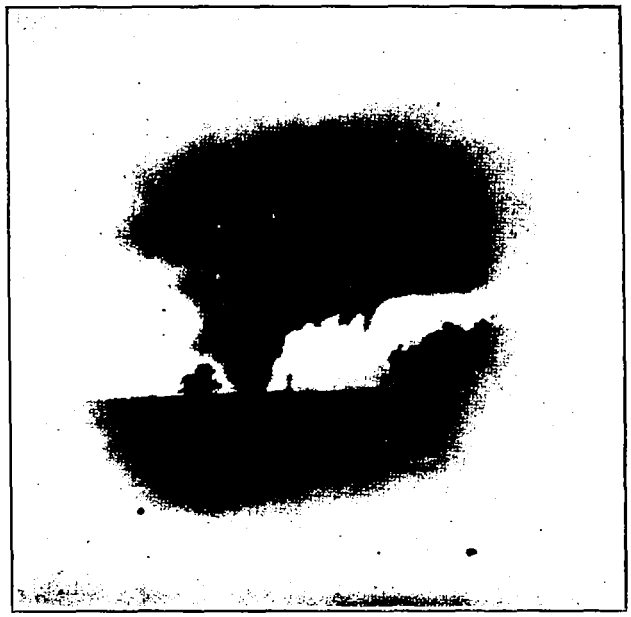

FIG. 2.—The tornado cloud of May 25, 1907, receding from Wills Point, Tex. The camera faced north-northwest; the cloud is distant about 3 miles and is moving northeast.

NOTES FROM THE WEATHER BUREAU LIBRARY.

By C. FITZHUGH TALMAN, Assistant Librarian.

The report of the Transvaal Meteorological Department for 1906, issued in 1907, shows that 375 stations in the Transvaal and 1 in Rhodesia were reporting to the central station at Johannesburg, an increase of 86 in one year. Of these 32 were equipped with barometers. All the observers except at the central station are volunteers or are attached to other government departments, and receive no remuneration for their meteorological work.

Mr. Alexander Watt has been elected meteorological secretary of the Scottish Meteorological Society to succeed the late Dr. Alexander Buchan.

A letter from Sydney Observatory states that the several state meteorological services of Australia are to be brought under the central authority of the federal government about the end of this year. Since July, 1906, the meteorological department of Sydney Observatory, which controls meteorological work thruout New South Wales, has been independent of the jurisdiction of the government astronomer, under whom it was formerly placed.

As a consequence of the great Valparaiso earthquake of last year the Government of Chile has invited Count Montessus de Ballore to establish a seismological service in that country.

The Chilean Government has just published the seventh annual volume of ter-daily observations at its coast stations.[1] We note the establishment of a station at Punta Arenas, on Magellan Strait, the observations dating from January 1, 1905. This is of special interest because several earlier series of observations at Punta Arenas, dating from 1853, have been marked by important discrepancies and the climate of this region has not yet been satisfactorily established. (See Meteorologische Zeitschrift, Bd. 8, 1891, p. 352–354). The Chilean service maintains two other stations on Magellan

[1] Anuario del Servicio meteorolójico de la Direccion del territorio marítimo. Tomo sétimo, correspondiente al año 1905. Valparaiso, 1907.

Strait, viz, Islote de los Evanjelistas and Punta Dungeness, at the west and east ends of the strait, respectively, and the terdaily observations of all three stations are published *in extenso*.

The Indian Meteorological Department has prepared a series of pilot charts of the Indian Ocean, in the form of an atlas, showing the normal monthly conditions as regards pressure, winds, and currents for the region north of latitude 12° south. This work is to be published shortly.

The Indian Meteorological Department has been experimenting with a special form of recording barometer to register without attention four months at a time. If the apparatus proves successful it is intended to install it on the summit of Chur Peak, which is inaccessible during the winter months, and by the help of an observer at an inhabited station lower down the mountain to secure accurate information regarding vertical pressure gradients.

Symons's Meteorological Magazine for June, 1907, contains some particulars regarding the proposed removal of the English Meteorological Office from its present rather cramped quarters in Victoria street to a new building in South Kensington, in the vicinity of the notable group of buildings devoted to the arts and sciences which includes the Natural History Museum, the Victoria and Albert Museum, and the Imperial Institute. The Meteorological Office is to be housed under the same roof with the District Post and Telegraph Office for South Kensington. This arrangement will do away with the necessity the office is now under of maintaining private telegraph wires and a staff of telegraph clerks, as all the telegraphic work will be done by the post-office staff in an adjoining room. We do not doubt, however, that the loss of the Meteorological Office as a near neighbor will be felt by the Royal Meteorological Society, which is domiciled at 70 Victoria street; while, reciprocally, the Office will miss the close proximity of the extensive and well-administered library and archives of the Society.

At the New York meeting of the American Physical Society, March 2, 1907, a paper was read by C. C. Trowbridge entitled, "On atmospheric currents above 50 miles from the surface of the earth."[2] The region in question is far above the highest levels attainable by kites and balloons, and the author states that its currents can be studied only by observations of meteor trains. He has tabulated the results of 61 observations of meteor train drift; and these show that in middle latitudes the drift of the trains at great altitudes is not steadily to the eastward, as might have been supposed, but may be in any direction, tho an easterly movement predominates.

On April 14, 1907, Dr. Stefan C. Hepites, the founder and first director of the Meteorological Institute of Roumania, was relieved of the active administration of the institute, at his own request, after a service of twenty-three years, and appointed honorary director. Mr. I. St. Murat succeeds him as director. Doctor Hepites will continue to take part in the purely scientific work of the institute.

Mr. C. J. Hering, a veteran meteorological observer of Dutch Guiana, died May 30 last, at the age of 78. Mr. Hering was observer for the Smithsonian Institution as early as 1857, and afterward made observations for the United States Signal Service, the Meteorological Institute of the Netherlands, and the Bureau Central Météorologique de France.

The accompanying chart, fig. 1, shows the distribution of the meteorological stations which the Germans have recently established in and near their colony of Kiaochau, China. At the central station, Tsingtau, observations have been made since July, 1898, and these have been published periodically in the Annalen der Hydrographie (Berlin); also, in part, in Heft IX of Deutsche Überseeische Beobachtungen, issued by the Deutsche Seewarte at Hamburg. All the Tsingtau observations are to be brought together in Heft XV of the latter publication. Heft XIV, which has just appeared, contains the complete series of observations to the end of 1904 for all the stations except Tsingtau.

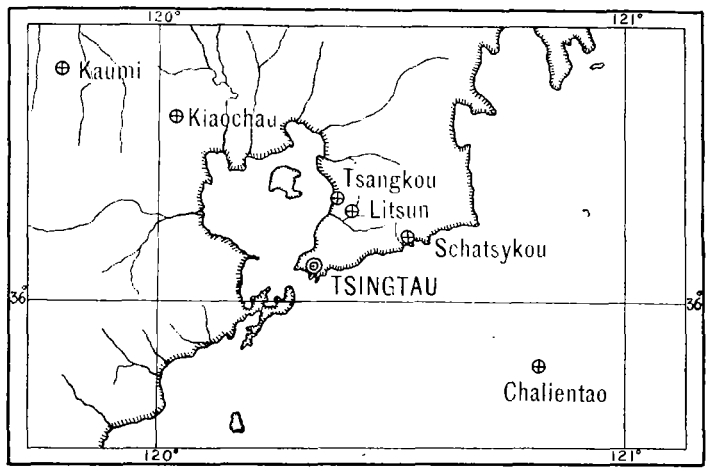

FIG. 1.—German meteorological stations in China.

Doctor Heidke, of the Deutsche Seewarte, has kindly communicated to us the location of the station Schatzykou—which is not shown on any map in the Weather Bureau Library. The rest of our chart is based upon the official Karte von Ost-China, issued by the Cartographic Section of the Royal Prussian Survey, 1901.

RELATIONS OF THE U. S. WEATHER BUREAU TO THE RAILROAD MAN.

We copy the following items from the address of Mr. H. W. Richardson, local forecaster, Duluth, Minn., before the Northern Railway Club on December 28, 1906:

During this century meteorology has made great advance and it is now accorded a place in the very front rank of the sciences. From a small beginning the Weather Bureau has grown constantly larger and more efficient. Insurance and other experts figure that it returns $20,000,000 or more each year in property saved to the people. And this on an annual investment of about $1,500,000 ought to be considered a fairly good proposition as regards dividends, even by railroad men, who, as most of us are led to believe, are so skilled in the art of altitudinous finance that they can even extract money or its equivalent from the commonest grade of aqua pura. And vessel experts also state that their losses are now only 25 per cent of what they would be without the storm warnings.

In railroad construction some of the important considerations are the facts regarding temperature and precipitation averages and extremes. Culverts must be made which will suffice to carry off flood water due to heavy snow or rain, and bridge construction must be such as will withstand the effects of flood and ice. Consideration must also be given the possibility of landslides due to torrential rains. The matter of temperature extremes constitutes a very important item, as iron and steel are very often greatly affected by contraction and expansion. Besides temperature conditions also materially affect the tensile strength of metals.

In all structural metal work climatic data play an important part, and due allowance must always be made for the action of temperature as well as wind force. In the first Brooklyn

[2] Physical Review, Lancaster, Pa., June, 1907, pp. 527-529.